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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/750,038

12/30/2003

John B. Halbert

42P17989

9193

8791

7590

01/11/2005

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EXAMINER

LE, THONG QUOC

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/750,038	HALBERT ET AL.	
	Examiner	Art Unit	
	Thong Q. Le	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 and 16-22 is/are allowed.
- 6) ☒ Claim(s) 7 and 12 is/are rejected.
- 7) ☒ Claim(s) 8-11 and 13-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Pre-amendment filed on April 29, 2004 has been entered.
2. Claims 1-22 are presented for examination.

Specification

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7,12 hare rejected under 35 U.S.C. 102(b) as being anticipated by Goodwin et al. (U.S Patent No. 5,586,294).

Regarding claims 7, 12, Goodwin et al. disclose a controlling device (Figure 1) comprising:

a first storage location (Column 9, lines 9-20) in which data concerning the status of rows within a bank of memory cells within a memory device is stored (Column 8, lines 45-65); control logic (Figure 1, 14) coupled to the first storage location to check data within the first storage location to determine if the contents of a specific row from which

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data is to be read is already cached by a row of sense amplifiers and to check if the specific row is the open row within the bank (Column 4, lines 65-67, Column 5, lines 1-23); and a memory bus (Figure 1, 11) coupling the control logic to the memory device to allow commands to be transmitted from the control logic to the memory device (Figure 1). More specifically, Goodwin et al. disclose a processor (Figure 1) as claim 12 discloses.

Allowable Subject Matter

6. Claims 1-6, 16-22 are allowed.

Claims 1-6, 16-22 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Goodwin et al. (U.S. Patent No. 5,586,294), and others, does not teach the claimed invention having a isolator control logic to coordinate the operation of the first set of subarray isolators to allow data in a row of memory cells within the first subarray to be copied to and latched by the first row of sense amplifiers, to coordinate the operation of the first set of common isolators to allow data latched by the first row of sense amplifiers to be transmitted to the plurality of global I/O lines, and to coordinate the operation of the first set of subarray isolators to prevent the loss of data latched by the first row of sense amplifiers by a precharge operation carried out to precharge the first plurality of bit lines.

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7. Claims 8-11,13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 8-11,13-15 include allowable subject matter since the prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Goodwin et al. (U.S. Patent No. 5,586,294), and others, does not teach the claimed invention having wherein a mini read command is transmitted by the control logic to the memory device if the contents of the specific row are already cached by a row of sense amplifiers and the specific row is the open row within the bank to cause the data cached by the row of sense amplifiers to be output by the memory device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong Q. Le whose telephone number is 571-272-1783. The examiner can normally be reached on 8:00am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thong Q. Le
Primary Examiner
Art Unit 2818

THONG LE
PRIMARY EXAMINER